

ART 34 AMDT

We claim:

1. A process for preparing amines by catalytic hydrogenation of
5 nitroaromatics and subsequent removal of the catalysts from
the reaction mixture, which contains at least one aromatic
amine and water, which comprises carrying out the removal of
the catalysts continuously by means of membrane filtration,
10 which is carried out at a pressure on the suspension side of
from 5 to 50 bar, a pressure difference between the
suspension side and the permeate side of at least 0.3 bar and
a flux rate on the suspension side of from 1 to 6 m/s.
2. A process as claimed in claim 1, wherein the pressure on the
15 suspension side is from 10 to 30 bar.
3. A process as claimed in claim 1, wherein the filter membrane
has a pore diameter in the range from 10 nm to 20 μ m.
- 20 4. A process as claimed in claim 1, wherein the hydrogenation is
carried out in a jet loop reactor.
5. A process as claimed in claim 1, wherein the hydrogenation is
25 carried out in a jet loop reactor having an external and an
internal circuit.
6. A process as claimed in claim 1, wherein the catalysts used
comprise metals of transition group VIII of the Periodic
Table on supports.
- 30 7. A process as claimed in claim 1, wherein the catalysts used
comprise platinum, palladium and/or iridium catalysts on
carbon supports.
- 35 8. A process as claimed in claim 1, wherein the hydrogenation is
carried out in a jet loop reactor having an external and
internal circuit, the catalysts used comprise platinum,
palladium and/or iridium catalysts on carbon supports and the
40 membrane filter is located in the external circuit of the
reactor.